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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,095	07/15/2003	Andy Harjanto	13768.604.22	8726

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EXAMINER	
STACE, BRENT S	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/620,095	HARJANTO, ANDY	
	Examiner	Art Unit	
	Brent S. Stace	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-4,7-9,12,14-16,18-21,29-34 and 36-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4,7-9,12,14-16,18-21,29-34 and 36-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. This communication is responsive to the amendment filed July 25th, 2007. Claims 2-4, 7-9, 12, 14-16, 18-21, 29-34, and 36-39 are pending. In the amendment filed July 25th, 2007, Claims 31, 37, 38, and 39 are amended, Claim 35 was canceled, and Claims 31, 37, 38, and 39 are independent Claims. The examiner acknowledges that no new matter was introduced and the claims are supported by the specification.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/25/07 has been entered.

Response to Arguments

3. Applicant's arguments filed July 25th, 2007 with respect to Claims 2-4, 7-9, 12, 14-16, 18-21, and 29-39 have been considered but are moot in view of the new ground(s) of rejection.

4. With respect to the applicant's argument with respect to exemplary Claim 31 (including Claims 37, 38, and 39) for the prior art(s) allegedly not teaching "an abbreviated XPath expression," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection. Partiucular note should be given to the "XML in a Nutshell" reference not used in rejecting any claims. The reference shows however some abbreviated XPath expressions having a syntax similar to the XPath expressions in Krishnaprasad. As such, the XPath expressions in Krishnaprasad are also abbreviated XPath expressions.

5. With respect to the applicant's argument with respect to exemplary Claim 31 (including Claims 37, 38, and 39) for the prior art(s) allegedly not teaching "converting the abbreviated XPath expression to one or more database queries to locate the requested object in the database," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

6. The other claims argued merely because of a dependency on a previously argued claim(s) in the arguments presented to the examiner, filed July 25th, 2007, are moot in view of the examiner's interpretation of the claims and art and are still considered rejected based on their respective rejections (part(s) of recited below).

Response to Amendment

Claim Rejections - 35 USC § 112

7. In light of the applicant's respective arguments or respective amendments, the previous 35 USC § 112 rejections to the claims have been withdrawn.

Claim Rejections - 35 USC § 102

8. In light of the applicant's respective arguments or respective amendments, the previous 35 USC § 102 rejections to the claims have been withdrawn.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 2-4, 7-9, 12, 14-16, 18-21, 29-31, 33, 34, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0004964 (Cameron et al.) in view of U.S. Patent Application Publication No. 2002/0078094 (Krishnaprasad et al.).

For **Claim 31**, Cameron teaches: "A method for accessing objects arranged in a hierarchy in a database, [Cameron, paragraph [0034]] comprising:

- storing objects in a database, where in the objects each comprise corresponding attributes; [Cameron, paragraphs [0034] and [0035]]
- defining relationships linking different attributes of different objects in a relationship not identified by the hierarchy of the database, the relationship not being explicitly identified in the database, and not ascertainable by checking

attribute names in the database, [Cameron, paragraphs [0034] and [0035]] wherein defining the relationships includes creating pointers linking each object by a defined attribute relationship with another object, and such that the defined attribute relationships comprise linked paths between the objects, as defined by their attributes, [Cameron, paragraphs [0034] and [0035]] and wherein the defined relationships comprise relationships other than parent-child relationships defined by a directory hierarchy, [Cameron, Table 1] and wherein defining attribute relationships for linking objects enables objects of different types to be linked by the defined attribute relationships, [Cameron, paragraph [0043] and Tables 1 and 4] each attribute relationship comprising a defined name [Cameron, paragraphs [0035] and [0108]];

- receiving a client request for accessing a requested object in the database, wherein the request is entered in the format of a location path expression [Cameron, Figs. 6-12 with paragraph [0094]] having the following format:
  - a first expression component reciting a view name, wherein the view name is a particular defined name of a particular one of the defined attribute relationships; [Cameron, paragraphs [0035] and [0108]] and
  - at least one path element defining one of the objects related by the defined attribute relationship associated with the view name and that defines at least a portion of a linked path to the requested object; [Cameron, paragraph [0108] with Cameron, Figs. 9-12]

- processing the client request comprising the location path expression ... to locate the requested object in the database; [Cameron, paragraph [0094]] and
- returning the requested object and any other data specified in the location path expression to a client" [Cameron, paragraphs [0106] with [0122]].

Cameron discloses the above limitations but does not expressly teach:

- "...as an abbreviated XPath expression
- ...by converting the abbreviated XPath expression to one or more database queries."

With respect to Claim 31, an analogous art, Krishnaprasad, teaches:

- "...as an abbreviated XPath expression [Krishnaprasad, paragraph [0052]]
- ...by converting the abbreviated XPath expression to one or more database queries" [Krishnaprasad, paragraph [0051]].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Krishnaprasad and Cameron before him/her to combine Krishnaprasad with Cameron because both inventions are directed towards using databases to retrieve data.

Krishnaprasad's invention would have been expected to successfully work well with Cameron's invention because both inventions use databases. Cameron discloses dynamically generating multiple hierarchies of inter-object relationships based on object attribute values (title) comprising querying at least a database and retrieving results. However, Cameron does not expressly disclose querying using an abbreviated XPath expression that gets converted into one or more database queries. Krishnaprasad

discloses a method and apparatus for XML visualization of a relational database and universal resource identifiers to database data and metadata (title) comprising translating an exemplified abbreviated XPath query into relational database queries.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Krishnaprasad and Cameron before him/her to take the translating XPath to relational database queries from Krishnaprasad and install it into the invention of Cameron, thereby offering the obvious advantage of using standard W3C XPath in exchanging/traversing data in relational databases (Krishnaprasad, abstract and paragraph [0023]).

Claim 2 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, further comprising reviewing configuration information to identify the defined attribute relationship associated with the view name in the location path expression" [Cameron, paragraphs [0035] and [0108]].

Claim 3 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 2, wherein reviewing configuration information further identifies a root level starting point associated with the view name" [Cameron, paragraphs [0045] and [0115]-[0116]].

Claim 4 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 2, wherein reviewing the configuration determines whether the client has permission to access the database based on the defined attribute relationship" [Cameron, paragraph [0044]].

Claim 7 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein client request is received according to the Simple Object Access Protocol (SOAP)" [Cameron, paragraphs [0095] and [0098]].

Claim 8 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein one of the at least one path elements of the location path expression is a wildcard element" [Cameron, paragraph [0106]].

Claim 9 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein one of the at least one path elements of the location path expression indicates a search in a reversed direction of the predefined relationship" [Cameron, paragraph [0106] with Fig. 10].

Claim 12 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein the database is a directory service database" [Cameron, paragraphs [0005] and [0088]].

Claim 14 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 38, further comprising obtaining configuration information from the server defining the relationships linking attributes of the objects in the database and associated view names thereof" [Cameron, paragraphs [0035], [0108], [0045], and [0122]].

Claim 15 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 14, wherein sending the request sends the request in a message to the server according to the Simple Object Access Protocol (SOAP)" [Cameron, paragraphs [0095] and [0098]].

Claim 16 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 38, wherein one of the at least one path elements of the location path expression is a wildcard element" [Cameron, paragraph [0106]].

Claims 18-20 and 21 encompass substantially the same scope of the invention as that of Claims 2-4 and 12, respectfully, in addition a to computer-readable medium and some instructions for a database server of a database for performing the computer-readable medium instructions of Claims 2-4 and 12, respectfully. Therefore, Claims 18-20, and 21 are rejected for the same reasons as stated above with respect to Claims 2-4 and 12, respectfully.

Claim 29 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 38, wherein the server is a database server of the database" [Cameron, paragraphs [0005] and [0088]].

Claim 30 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 38, wherein the database is a directory service database" [Cameron, paragraphs [0005] and [0088]].

Claim 33 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein the location path expression includes a plurality of objects related by the defined attribute relationship specified by the view name, and wherein each of the objects are separated by a forward slash" [Cameron, Figs. 10-12].

Claim 34 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, where in at least one of the defined attribute

relationships includes a relationship between objects of different types that are linked by an attribute relationship" [Cameron, paragraph [0043] and Tables 1 and 4].

Claim 36 can be mapped to Cameron (as modified by Krishnaprasad) as follows: "A method as recited in claim 31, wherein the method further includes:

- providing an application programming interface (API) from which applications on the client issue function calls to form the data path expression and to send the data path expression over a transport protocol to a Web service for directory access to the database"[Cameron, paragraphs [0005], [0045], [0098] [0088]].

Claim 37 encompasses substantially the same scope of the invention as that of Claim 31, in addition to a computer program product and some instructions for performing the method steps of Claim 31. Therefore, Claim 37 is rejected for the same reasons as stated above with respect to Claim 31. Additionally, Claim 37 recites "one or more physical computer-readable media having stored thereon computer-executable instructions that, when executed by a processor, cause a computing system to perform the following" that can be mapped to Cameron as follows: [Cameron, paragraph [0041]].

Claim 38 encompasses substantially the same scope of the invention as that of Claim 31, in addition to a method and some steps for performing the method steps of Claim 31. Therefore, Claim 38 is rejected for the same reasons as stated above with respect to Claim 31. Additionally, Claim 38 recites "a method for receiving objects arranged in a hierarchy in a database requested from the database, the method comprising: connecting with a server providing access to objects stored in a database" that can be mapped to Cameron as follows: [Cameron, paragraphs [0034] and [0094]].

Claim 39 encompasses substantially the same scope of the invention as that of Claim 31, in addition to a computer program product and some instructions for performing the method steps of Claim 31. Therefore, Claim 39 is rejected for the same reasons as stated above with respect to Claim 31. Additionally, Claim 39 recites "one or more physical computer-readable media having stored thereon computer-executable instructions that, when executed by a processor, cause a computing system to perform the following: connect with a server providing access to objects stored in a database" that can be mapped to Cameron as follows: [Cameron, paragraph [0041] with Cameron, paragraphs [0034] and [0094]].

11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0004964 (Cameron et al.) in view of U.S. Patent Application Publication No. 2002/0078094 (Krishnaprasad et al.), in view of U.S. Patent No. 6,366,954 (Traversat et al.).

For **Claim 32,** Cameron (as modified by Krishnaprasad) teaches: "A method as recited in claim 31, wherein the database is a database of a Web service" [Cameron, paragraphs [0144]-[0145]].

Cameron (as modified by Krishnaprasad) discloses the above limitations but does not expressly teach: "...and wherein the location path expression is translated into a plurality of LDAP queries that are processed by the Web service to satisfy the client request an that are iteratively processed until the client request is satisfied."

With respect to Claim 32, an analogous art, Traversat, teaches: "...and wherein the location path expression is translated into a plurality of LDAP queries that are processed by the Web service to satisfy the client request an that are iteratively processed until the client request is satisfied" [Traversat, col. 5, lines 38-42 with Cameron, paragraphs [0104] and [0109]].

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Traversat with Cameron (as modified by Krishnaprasad) because both inventions are directed towards using directory services.

Traversat's invention would have been expected to successfully work well with Cameron (as modified by Krishnaprasad)'s invention because both inventions use databases. Cameron (as modified by Krishnaprasad) discloses dynamically generating multiple hierarchies of inter-object relationships based on object attribute values comprising a web accessible database of objects issuing queries, however Cameron (as modified by Krishnaprasad) does not expressly disclose that LDAP is used as the protocol on how the queries in Cameron (as modified by Krishnaprasad) are formulated/formatted. Traversat discloses a method and data format for exchanging data between a java system database entry and an LDAP directory service comprising the use of the LDAP in directory services.

It would have been obvious to one of ordinary skill in the art at the time of invention to take the use of the LDAP in directory services from Traversat and install it into the invention of Cameron (as modified by Krishnaprasad), thereby offering the

obvious advantage of tuning directories of Cameron to give quick-responses to high-volume lookup or search operations (Traversat, cols. 5-6, lines 60-13).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent S. Stace whose telephone number is 571-272-8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F 9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brent Stace

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